

bulletin

Virginia Department of Transportation Employee Newsletter

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Connie Sorrell

Sorrell is chief of systems operations

Commissioner Philip Shucet has appointed Constance Sorrell to the new position of chief of systems operations. Her assignment will include developing innovative ways to manage roadway assets, traffic incidents, traveler information systems, highway work zones, and snow and ice control.

The announcement means that **VDOT has elevated systems operations to an executive level, placing it on par with construction and maintenance**, the two traditional components of the management structure. With construction funds and space becoming scarce, VDOT will rely more on the use of technology to improve the operations of the transportation system.

As chief of systems operations, **Sorrell will focus first on Hampton Roads District, and she will serve as interim district administrator there.** By improving the district's performance, she can set the stage for a permanent district administrator to run a successful operation. Commissioner Philip Shucet plans to name a new district administrator by next January.

"Traffic congestion has increased dramatically in Hampton Roads," Sorrell notes. "The region is at a point where it can greatly benefit from systems operations management, which is geared toward using technology to reduce congestion through better use of traffic cameras, electronic messaging signs, HOV lanes and other operations."

The Hampton Roads Planning District Commission determined that 318 lane miles in the region were severely congested in 1995 and predicts that by 2015 the region will have approximately 870 miles of heavily congested roads, in spite of planned improvements.

Sorrell states, "VDOT must bring more of an urban feel to the district, which is a collection of many municipalities. We must be clearly aligned and in touch with the localities we serve," Sorrell says. A critical element in that is "more effective communications of the district's projects for commuters, the community, local government leaders and elected officials. It is important that the district does everything possible to empower commuters with information and options. If you have good information about what to expect with construction, at least you can plan ahead and have some control over the situation," she adds.

Sorrell, a 32-year veteran of Virginia state government, will bring to the post 10 years of legislative and executive branch experience in addition to 22 years of VDOT transportation experience in the administrative, policy, organizational development and operational areas. Larry Jones, Management Services Division administrator, will become acting chief of organizational and policy development as Sorrell leaves that post for her new one.

News Briefs



First statewide snow in 2004 -- VDOT crews and contractors dealt with a wintry mix of snow, sleet and freezing rain that created slick roads across most of the state beginning Sunday, Jan. 25. Crews were activated in phases to make the best use of snow-removal funds while keeping the highways as safe for motorists as possible. By Thursday morning, all interstates were clear; most primaries had bare pavement and crews continued to work on secondaries. Before the storm,

about \$28.4 million of this fiscal year's statewide snow removal budget of \$80 million had been spent. At the end of January, the total was \$48 million.

Better on budget, not so on time -- VDOT completed 73 percent of its construction contracts and 82 percent of its maintenance projects within budget, according to the latest Report Card for the period of July through December 2003. "VDOT is making steady and sustainable progress in delivering projects within budget," Commissioner Philip Shucet stated. The report also shows the department's continuing challenge to meet deadlines. During the period, VDOT completed 29 percent of construction contracts and 38 percent of maintenance projects on time. "On time" is used in the narrowest sense: original contract completion date, with no exceptions. Improvement is coming, however, says the Commissioner. "This will take time, but it will happen."

Commissioner named to TRB committee -- Commissioner Philip Shucet has been appointed to the Transportation Research Board's (TRB) Executive Committee. TRB is an arm of the National Academy of Sciences and the National Academy of Engineering. He is among 25 members, including eight chief executive officers of state departments of transportation, who will lead the nation's premier transportation research organization. TRB's mission is to promote innovation and progress in transportation through research. In an objective and interdisciplinary setting, the TRB facilitates the sharing of information on transportation practice and policy, and provides expert advice on transportation worldwide.

New Learning Management System (LMS) coming -- Soon VDOT and other state agencies will sign a contract to acquire a new resource to better meet the individual training needs of VDOT employees. The Learning Management System, a Web-based tool, will move VDOT into a high-tech learning environment and enable the agency to manage career-related activities more efficiently. Employees will have the opportunity to take a pro-active approach to their professional development as they manage their training records, take courses and track their progress online. LMS will also help VDOT with succession planning, course development and administration, and a wide variety of other functions. Stay tuned for more information as Barbara Patteson and Jeff Shrader of the Learning Center work with teams to get this system ready.

CR Division partners with Norfolk State -- VDOT's Civil Rights Division has partnered with Norfolk State University to develop a computerized construction trades module for high school students. Called SkillTek, the program was initially developed by the university under a U.S. Department of Labor workforce development grant.



Pictured at an official signing for the SkillTek Program are (L to R, top row) Don Askew, deputy commissioner; Freddie Jones, assistant CRD administrator; James Tallmadege, Norfolk State University; Amanda Vallejo, CRD administrator; and Jessica R. Spencer, CRD compliance manager; (first row) Constance Sorrell, chief of systems operations; Dr. Thomas Mastaglio, Norfolk State; and Mohamed Dumbuya, Federal Highway Administration.

SkillTek is an innovative application of technology designed to meet work force training needs by providing at-risk students an awareness of trade occupations for which there are projected workforce needs. The pilot program included two computer simulations on healthcare and heavy equipment operations, which were deployed at a high school in

Portsmouth and one in Suffolk. The pilot demonstrated that high school students grow interested in trade professions through classroom use of high-fidelity computer simulations and three-dimensional visualizations. The division also will assist in the development of a construction trades module for at-risk students who will be introduced to a variety of occupations in the construction industry.

Names in the News



Chris Winstead

Winstead promoted in district

Chris Winstead, Chesterfield resident engineer for the past five years, has been named district construction engineer in Richmond District.

Winstead "will bring a renewed focus on innovative methods of delivering contracts on schedule and on budget, and I look forward to having Chris in his new role in the district management team," Richmond District Administrator Tom Hawthorne said.

A civil engineering graduate of Virginia Tech, Winstead worked as a co-op student in Salem Residency from 1988-1990 and joined the department as an engineer trainee in Staunton District Office and Harrisonburg Residency in 1992. He served as an assistant resident engineer in Sandston Residency before becoming resident engineer in Chesterfield. A licensed professional engineer, Winstead has served as chairman of the Resident Engineers Committee. He is a native of New Castle.

New human resources administrator named

Meredith Baker, formerly director of human resources for Dominion Resources Services, has been named director of human resources at VDOT. Baker also directed the organizational development and labor functions for the corporation. She succeeds Patty Bauguss, who retired Jan. 1.

Baker's experience includes 13 years with the Virginia Community College System and Virginia Commonwealth University. She holds a bachelor's degree in education from Longwood College and a master's degree from the University of Virginia in educational administration and supervision. She holds two professional certifications in human resources, the senior professional in human resources (SPHR) and the certified compensation professional (CCP).

New on the Web



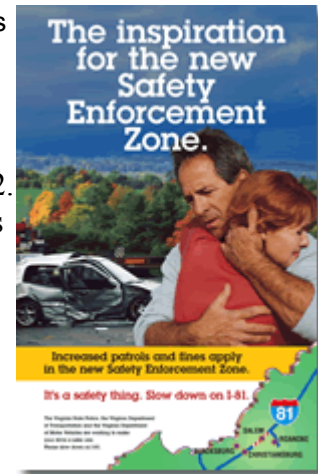
VDOT releases Quarterly Report Card for second quarter

Showing our performance on core business outcomes -- construction and maintenance contracts -- the Report Card depicts contracts completed on time and on budget. It also shows how well current projects are meeting their schedules and budgets by providing a synopsis of VDOT's financial standing (July through December 2003). View report online at-- <http://virginiadot.org/infoservice/ctb-qtrlyrpt.asp>

How is a Safety Enforcement Zone designated?

Highway safety can often become a concern along certain segments of highway. VDOT's Highway Safety Corridor program combats safety issues by increasing driver awareness in areas designated as Safety Enforcement Zones. Drivers caught speeding in a Safety Enforcement Zone will be penalized with higher fines.

The first zone designated is along the I-81 corridor between milepost 127 and 142. Additional roads will be designated in the upcoming months. More information is available online at-- <http://www.virginiadot.org/comtravel/ct-highway-safety-corridor.asp>



VDOTer in Profile

World-traveling RE rooted in Rocky Mount



Mel Quesenberry

Born and raised on a cattle farm in Floyd County, Mel Quesenberry began his VDOT career in 1977 working on a maintenance crew while attending engineering classes at Virginia Tech. Don't be surprised if the name Quesenberry sounds familiar. Mel's grandfather, father and three brothers have all contributed to keeping Virginia moving.

"I've never even thought about working anywhere else," says the Rocky Mount resident engineer, a 26-year VDOT veteran. But he does love to travel, as his office wall exhibits with a push-pinned map of Europe, a broken raft paddle, a section of rail track and other

memorabilia.

As an engineer trainee, Quesenberry worked in the Christiansburg Residency, the Salem District Bridge Section and the Central Office Location and Design Division before settling down for six years in the Suffolk Residency. In 1987, he transferred as an assistant resident engineer to the Rocky Mount Residency where he was promoted to resident engineer in March 2000.

Quesenberry has excellent staff and contractor partnerships in Rocky Mount.

As resident engineer Quesenberry oversees construction and maintenance for 1,200 miles of road in Franklin County. One of his greatest challenges is accommodating the steady development and increasing tourist traffic at Smith Mountain Lake. "The lake development has remained constant despite the changes in the state or national economy," he explains.

He is moving his residency toward the twin goals of "on time, on budget" too. In the past year, four construction projects in Franklin County have been completed ahead of schedule or under budget. Excellent residency staff and great partnerships with contractors are the reasons, he says.

One project that he is particularly proud of is the experimental bridge on Route 668. It was completed months ahead of schedule and \$1,600 under budget. One of the bridge's spans is among the first in the nation to be built with reinforced fiberglass polymer rods. Virginia Tech's Transportation Institute installed sensors to monitor the polymer rods to compare with the bridge's conventional steel rods. This research could lead to longer lasting bridges in the future.

Quesenberry believes being a successful leader takes consensus building, recognizing the value of teamwork and a willingness to listen. He also is a firm believer in encouraging others to learn and explore possibilities.

"None of our jobs is so rigidly defined that we cannot take the initiative to go above and beyond and learn something new," he comments.

In his time away from the office, Quesenberry enjoys raising cattle, collecting, architecture, photography, and music. He is also quite the world traveler with stamps on his passport from the Czech Republic, Quebec, Spain, England, Germany and Italy, just a to name a few stops.

About his travels, he says with a smile, "No matter where you go, you always see the art of road construction." Quesenberry particular enjoyed seeing bridges in England and Wales. The bridges there, he adds, have "a varying architectural style that reflects and enhances their surroundings". --**By Jason Bond**



[**CLICK TO TOUR**](#)

Just in from a day's work, Hampton Roads sign installation crew members are (from left) Willie Walker, Neil Lankford, Karl Marshall, Teddy Baggett, Jerone Hunter, and James Council. Not pictured is supervisor Robert Branch.

[Virtual Visit](#)

[Take a tour of the Hampton Roads Sign Shop](#)

Last March, when a sign panel fell onto I-64, the Hampton Roads Traffic Engineering Section set forth a plan to make another such event unlikely.

After inspecting 1,078 signs in the district, engineers determined that 242 of them needed to be retrofitted, meaning that where overhead signs were once welded in place above the interstates, they would now be bolted in place. Involved were about 20 bolts per sign, requiring an hour's work per sign plus travel and other preparations.

The goal was set to have the retrofitting completed by the end of December. It was a hefty assignment. While many Hampton Roads work units contributed, the greatest responsibility was shouldered by the district's sign crews.

[They worked extra hours, odd shifts, days one](#)

the job was done. week, nights the next, then weekends, according to Sal Sibilia, operations manager III in the Traffic Engineering Section. "The dedication of each crew member was overwhelming. They rearranged their home life to accomplish this task," he said.

Keep in mind that retrofitting was accomplished along with many other duties--and despite an interruption by Hurricane Isabel. But by Dec. 18,

Retirements

Raymond C. Aaron, oper. mgr. I, Amelia Residency, 35 years.
John D. Brock, oper. mgr. I, Lexington Residency, 39 years.
John D. Brugh, arch.eng. mgr. II, Christiansburg Residency, 29 years.
Susan S. Campbell, office serv. spec. III, Fredericksburg Residency, 19 years.
Albert L. Carter, transp. oper. II, Fredericksburg Residency, 18 years.
William D. Colvin, transp. oper. I, Manassas Residency, 31 years.
Leo J. Crandall, transp. oper. II, Christiansburg Residency, 29 years.
Rodger J. Daniels, eng. tech. III, Staunton District, 7 years.
Floyd F. Dunnavant, transp. oper. mgr. I, Amelia Residency, 30 years.
Carroll R. Eckard, transp. oper. II, Verona Residency, 27 years.
Wilson L. Ewing, transp. oper. II, Harrisonburg Residency, 24 years.
Marshall N. Foster, trades tech. IV, Culpeper District, 9 years.
Chester C. Fifer, security officer III, Elizabeth River Toll, 24 years.
Charlie Frank Gee, chief engineer of operations, 31 years.
Charles E. Grigsby, transp. oper. II, Northern Va. District, 10 years.
Harold L. Hagy, oper. mgr. I, Bristol District, 29 years.
Danny L. Hall, office spec. III, Lexington Residency, 37 years.
Larry W. Hammer, eng. tech. III, South Hill Residency, 15 years.
Richard A. Heslep, oper. mgr. I, Salem Residency, 31 years.
Lucian W. Hoffman, equip. repair tech. I, Culpeper District, 29 years.
Herman F. Hollins, arch.eng. II, Transportation Planning Division, 33 years.
James R. Howe, transp. oper. mgr. II, Charlottesville Residency, 37 years.
Wayne D. Howdyshell, eng. tech. III, Fredericksburg District, 15 years.
Marilyn R. Lewis, office serv. spec. II, Richmond District, 23 years.
William C. Joyner, transp. oper. II, Franklin Residency, 30 years.
Josephine C. King, office spec. III, Staunton District, 30 years.
John M. Linka, finan. svcs. spec. I, Asset Management Division, 31 years.
A. S. McDonald, transp. oper. II, Luray Residency, 38 years.
Larry W. Newcomb, arch.eng. I, Location and Design Division, 34 years.
Wayne D. Newland, transp. oper. II, Edinburg Residency, 30 years.
Elmer L. Rittenour III, transp. oper. II, Manassas Residency, 14 years.
Carl F. Sheets, arch.eng. I, Mobility Management Division, 42 years.
Noah I. Stillions Jr., transp. oper. II, Edinburg Residency, 31 years.
R. N. Switzer, equip. repair tech. I, Northern Va. District, 37 years.
J. E. Taylor, eng. tech. III, Materials Division, 43 years.
Robert E. Terrell, arch.eng. II, Local Assistance Division, 39 years.
James A. Trammell, transp. oper. II, Amelia Residency, 35 years.
Roy R. Webb, transp. oper. II, Chesterfield Residency, 21 years.
Robert J. Wittenberry, transp. oper. II, South Hill Residency, 25 years.

Obituaries

Marshall M. Atkins, 65, maint. supervisor, Culpeper District, died Dec. 9; retired in 1997 with 30 years of service.

Jackie H. Clark, 47, trans. oper. II, Culpeper Sign Shop, died Dec. 4; had 25 years of service.

Eunice R. Coughlin, 66, fiscal asst., Culpeper District Shop, died Dec. 3; retired in 1991 with 28 years of service.

Thomas W. Cyrus, 83, engineer A, Lynchburg Equipment Section, died Jan. 12; retired in 1983 with 38 years of service.

Charles E. Faulconer, 65, engineer I, Location and Design Section, Culpeper District, died Nov. 15; retired in 2001 with 39 years of service.

Andrew J. Friedman, 25, engineer, Planning Section, Hampton Roads District, died Dec. 14.

Dillard Jones Jr., 76, carpenter asst., Appomattox Residency, died Dec. 29; retired in 1985 with six years of service.

Joseph M. McCabe Jr., 81, former asst. state bridge engineer, died Jan. 3; retired with 33 years of service.

James L. Peyton, 61, equip. oper. A, Culpeper Residency, died Nov. 23; retired in 1995 with 7 years of service.

All in the Family

Bristol District

District Office: Congratulations to David Anderson, eng. tech. V, Location and Design Section, on becoming a registered professional engineer (P.E.). Equal congratulations are in order for Chris Blevins, engineer, Bridge Section, on earning his P.E. certification.

Wise Residency: Randy Wells has been promoted to oper. mgr. I for the Fremont AHQ.

Central Office

Environmental Quality Division: Thomas Aigner, noise abatement engineer, is a new P.E. in the division. Rebecca Behringer, environmental engineer, and her husband, Jeff, on the birth of a daughter, Holly Catherine. Congratulations to all!

Location and Design Division: Congratulations to engineers Brian Becker, Bruce McAuliffe and Bart Thrasher who can now write P.E. behind their names.

Local Assistance Division: H. W. "Winky" Chenault, who has been a key contributor to the Enhancement Program over the years, has been named coordinator of that program.

Mobility Management Division: A major milestone was reached by Philomena Lockwood, engineer, upon earning the P.E. certification.

Fredericksburg District

Bowling Green Residency: Patricia Taylor, admin. office spec. III, passed all four blocks of her Virginia Contracting Officer's exam on the first try! Congratulations to Carrie Kile, admin. off. spec. III, and her husband, Tim, on the birth of a son, Mason, on Jan 8.

Hampton Roads District

District Office: As part of Customer Service Week, Stephanie Lomax, Contract Administration Section, and Tony Parker, Administrative Services Section, were elected "Queen and King of Customer Service" for the Hampton Roads District. The section also has a new professional engineer, Christopher Terry. Meanwhile, the Structure and Bridge Section has new offspring--Thomas Peyton Kea, born to Edward "Trey" Kea, bridge maintenance crew, and his wife, Tara. Congratulations to all!

Ida Loizides, payroll accountant, Fiscal Section, has passed both the Fundamental Payroll Certification and the Certified Payroll Professional exams. Loizides was also elected president of the Hampton Roads Chapter of the American Payroll Association. Natasha Vance,

Lynchburg District

Amherst Residency: Brian Woodford, construction inspector, and his wife, Donna, have a new baby girl, Gracie Lyn. Timothy Heath Campbell, transp. oper. II, and his wife, Mary, are the proud parents of Hailee Faye. Homer A. Barnett, transp. oper. II, and his wife, Tammy, have a new daughter, Myra. Congratulations to all!

District Office: The Human Resources Section has two recent college graduates, Daphne Ashwell and Shannon Meadows, who earned bachelor's degrees in organizational management and development from Bluefield College. The Location and Design Section also has a graduate, Regina Newman, who earned a bachelor's degree in civil engineering from Old Dominion University. W. Don Wright, asst. equipment and facilities manager, has received notification from the Association of Equipment Management Professionals that he successfully passed exams for certification as a certified equipment manager.

Richmond District

District Office: Gary Martin, assistant structure and bridge engineer, has passed the eight-hour examination for his P.E. This is a crowning achievement for Martin, who began his VDOT career 29 years ago as a draftsman in the Central Office. He earned his engineering degree by taking evening classes while working full time and taking care of a young family. Also, John C. Aaron, global positioning system coordinator in the Survey Section, has earned the land surveyor license. A "well done" to both men.

Salem District

Rocky Mount Residency: Employees collected 1,010 pounds of food and distributed it to 11 needy families before Christmas. It's the continuation of a residency tradition in which employees have donated 16,800 pounds of food since 1987. Resident Engineer Mel Quesenberry notes, "Our employees have a very strong dedication to community."

engineer in the Location and Design Section, is the proud mother of a new baby daughter, Olivia Rose.

Suffolk Residency: Paige Dunlow was promoted from fiscal tech at the Franklin AHQ to fiscal tech senior at the residency.

Leadership Challenge

Knowledge management is a challenge for all

By GARY ALLEN, chief of, technology, research and innovation



Dr. Gary Allen

Getting the right knowledge to the right people at the right time is called "knowledge management." Accomplishing that is vital to an organization's continuing efficiency. So, for VDOT, developing processes and tools for knowledge management (KM) is critical.

Every VDOT manager and team member will be important in this new initiative to make knowledge available, and involvement of employees close to retirement is a must. Fundamental to our success is an understanding of how knowledge is managed.

Some knowledge is *overt*. It can be written down and shared in best practices and other documents. For example, the KM Office is working with project managers to discuss what works and what doesn't in managing construction projects. These best practices can be used with future projects to achieve on-time, on-budget results. The Project Management Office is in the process of establishing an intranet site that collects the best practices,

formats them and places them in a searchable database for easy access by all VDOT project managers.

One-third of our work force could leave the agency in the next five years--through retirement or turnover--so we cannot afford to neglect this challenge.

Other knowledge resides in people, where it waits to be brought into the open. It is called *tacit* knowledge. While this knowledge may be shared among people, getting it into written form is more difficult. An everyday example would be teaching someone how to ride a bike. Could instructions be so well written that someone could read them and, without any additional help, be a successful bike rider? Probably not. But when someone demonstrates bike riding, shares knowledge about it, and answers questions as they come up, success is likely.

For most people, **talking with someone to get knowledge is better than reading a general answer** that might not get to the heart of their problem. However, they must find a person who can help. In a large, widespread organization like VDOT, this can be daunting. Moreover, many VDOT employees with expertise are eligible for retirement, and no one knows what they know. Once they retire, it's too late--that knowledge is gone.

So how does knowledge management help? First, the KM Office will "map" the knowledge of the organization. That involves steps to: identify those groups that employees turn to for information; identify the expertise held within the group; collect any knowledge that we can put into written format; and identify the experts or groups that can be called on when employees have questions.

When a question gets answered by these experts, that part of the answer that can be written and shared will be made available on the KM intranet site. We also will set up discussion groups, or "communities of practice," between experts within the same function to ensure that their knowledge is shared with each other and with the organization as a whole. Work is already underway there with a small group of project managers who are managing large construction projects including the Woodrow Wilson Bridge, the Springfield Interchange, and the Coalfields

Expressway.

In addition, we are working with the Staunton District on a pilot program, which will later be rolled out to all the districts, to identify critical knowledge areas, knowledge groups--and the knowledge risk that may exist as a result of employees' eligibility for retirement. Their combined knowledge will be mapped and made available to all of VDOT. In the meantime we encourage you to stay in touch with our Knowledge Management Program by calling and talking with Maureen Hammer. With the possibility that one-third of our work force could leave the agency in the next five years--through retirement or turnover--we cannot afford to neglect this challenge.

Best Practices

Open the Resident Engineer Toolbox...

...and you will find many aids on this VDOT intranet site for delivering the Six-Year Program flawlessly.

They include presentations made by resident engineers at their statewide conference, a checklist for preliminary engineering (PE) functions, a system for tracking construction phase expenditures--and much more. Tools in this box will alert you to pitfalls, provide you tested how-to's, and perhaps bolster your confidence.

For example, under presentations, you find "**Best Management Practices**," and inside it you find ways to overcome obstacles to "on-time, on-budget" projects. One obstacle noted is "excessive PE costs and lack of accountability for PE charges." It's followed by suggestions, including "Establish sub-budgets for each residency, district, and Central Office functional discipline for a project. Hold each section accountable for their budgets."

Other presentations, offering numerous tips, deal with:

- **constructability and bidability** reviews (to ensure that plans are buildable within the requirements of the contract? Are the bid documents accurate and do they contain all the necessary information for the owner to convey the project needs and requirements to the contractor?)
- **employee development in scoping** and project development (to train employees to be aware of everything that must be looked at before construction plans are drawn)
- **firmer contract language** for efficient project delivery (to equip residencies with contract language focused upon timely deliverables so they may effectively communicate to the contracting industry the expectation of a timely completion)
- **regulatory reviewing and monitoring** (to prevent oversights that can slow project progress)

You also might want to access the collected wisdom of resident engineers who write about how to "track projects and methods to cut costs." Or you might need to know about "manpower planning" or "earned value analysis," which looks at work progress as it relates to the monetary value of work completed. You might need to know the "individual and cumulative values of sublets" for a project. Many other topics are discussed.

Tech-Bytes

Stainless steel is for more than flatware; It's a key to extending lives of bridges

The latest estimate of the **annual cost of corrosion in the nation's highway bridges** is \$8.3 billion. It's a problem the Virginia Transportation Research Council (VTRC) has worked fervently to remedy. Their findings? The use of stainless steel in reinforcing bars can add decades of life to future concrete bridges in Virginia.

Since the 1980s, state DOTs have used epoxy-coated carbon steel bars to prevent corrosion in bridges. This treatment can add five to 25 years to the life of these bars. However, epoxy does have weaknesses that limit its staying power. The goal is to find corrosion-resistant materials for reinforcing bars that will meet a design-life goal of 100 years for major bridges.



Researcher **Dr. Gerry Clemena** determined that **stainless steel** was a realistic prospect for such a material; however, it is expensive, and alternatives were sought. So he set up an experiment comparing bars clad with stainless steel, others made of stainless steel alloys, and carbon steel bars, which were tested in concrete blocks. The blocks were cured outdoors for 30 days and then their sides were coated with epoxy. Immediately afterward, the surfaces of the blocks were subjected to weekly cycles of saturation with sodium chloride followed by drying, to simulate harmful deicing salts on concrete bridges.

The results? Dr. Clemena found that after almost two years, the clad bars were virtually as corrosion resistant as the solid stainless steel bars. In contrast, the carbon steel bars corroded as early as 90 days after exposure. Thus far in the testing, the clad

and stainless steel bars have been **able to withstand 10 times more chloride** than the carbon steel bars. In effect, the two bars were given protection that indicates they could last far beyond the 100-year goal.

The initial cost of the epoxy-coated bars is lower than the clad bars, but in the long term the clad bars will be cheaper. Dr. Clemena predicts collateral savings: "The overall savings to the state are, to me, really very difficult to estimate, because so many benefits will result from the use of the clad bars. These benefits include longer life for future concrete bridges, less need for major repairs to them, fewer interruptions to traffic because of fewer repairs, and fewer work-zone traffic accidents associated with repair projects."

Among Dr. Clemena's recommendations: "VDOT should use stainless steel-clad bars as reinforcement in the top and bottom mats of new concrete bridge decks, especially in major bridges and in urban bridges that carry heavy traffic."

For an abbreviated version of this report, see <http://www.virginiadot.org/vtrc/briefs/03-r7rb/default.htm>

For the complete report, see http://www.virginiadot.org/vtrc/main/online_reports/pdf/03-r7.pdf

Living Our Values

Remembering Andy...

The death, Dec. 14, of Andrew J. "Andy" Friedman of the Hampton Roads District Office brought an **outpouring of appreciation from coworkers** for his life and work. A few of their tributes are printed here as an illustration of one who excelled in living the VDOT Values.

Friedman, 25, a transportation planner and engineer in the district, had been confined to a wheelchair since age 10 because of muscular dystrophy. But never was he confined in his aspirations or dedication. Since joining VDOT in 2000, Andy had done work commended by all; moreover, his spirit inspired all who knew him.

Here are excerpts from a few of the eulogies by employees:

"He never complained about what he couldn't do-he just worked hard at what he could do. When others were finding excuses not to get work done, Andy never used excuses...He taught everyone who knew him that when you are determined in life, nothing can stand in your way..."-- Unwanna Bellingier, Andy's supervisor

"Andy was the true meaning of focused. Like a hound dog on a bone, when he started something, he gnawed on it until completion."--Ross Pierce

"Andy had a genuine passion for planning..."--Eric Stringfield.

"He had a thirst for knowledge, and a thirst for life, teaching us a lot of lessons on how not to give up despite our circumstances..."--Regina Moore, coworker and classmate with Andy in a master's degree program at George Mason University, which they would have completed this spring.



"We learned a lot from the way Andy lived his life, he was an example of how to overcome any obstacle." --Kristin Tew

*** **

Culpeper District's Michael Mauro did the right thing after he found an expensive radio someone had left near a job site on Route 810 in Greene County. The engineering technician looked up the radio's serial number on a Motorola Web site and discovered it was worth \$1,000 and that it had been sold in Charlottesville. A salesman at Mobile Communications there was able to trace the radio to the chief of the Stanardsville Volunteer Fire Department. The chief and his radio are now reunited.

Independence AHQ in Wytheville Residency earned the esteem and appreciation of a resident on Route 692 in Grayson County. She had spent hours attempting to repair a water run-off problem where her driveway meets the road. Finally, she called the headquarters, and Sherman Brown, Frank Cox, Jimmy Farmer, Bobby Hash, Darrell Taylor, and Curtis Thomas responded. Ms. Amy Hauslohner writes, "The men took a look and in about 10 minutes went a long way toward fixing a problem that I have spent hours on this summer, repairing the gravel after heavy rains."

Martinsville Residency's Mike Coleman did some effective teaching during a visit to Figsboro Elementary School on the school's Career Day. From the letters written him by students, they clearly remembered his talking points about equipment and safety. Meanwhile, Martinsville AHQ was commended by the Gateway Streetscape Foundation for help in maintaining more than 100 bald cypress trees planted by volunteers in the median near the Fieldale exit off Route 220.

50 Years Ago

State map has long, lustrous history

"Demand for 'official' state maps of Virginia has increased until today some 250,000 copies are distributed annually," reports the February 1954 Bulletin. That distribution was impressive then, but it seems small compared to the present figure -- two million per year.

Then as now, **the state map was free of charge; however, it was not always so.** Here's a little history from the Bulletin:

"A map of the state's road network has been published since 1922, even before all the roads were numbered, but it was not until 1927 that a map like our present one was issued. The new map was extremely popular, and within a few months the first supply of 50,000 copies was gone. By 1929 the demand had jumped to 150,000 annually.

"In those days, when long detours and impassable construction on narrow roads were common, the maps were ordered flat and issued monthly with construction sites overprinted in red. This service was so welcome that many individuals and business firms were happy to pay a fee. The subscription list, however, soon became too difficult and expensive to maintain and was discontinued.

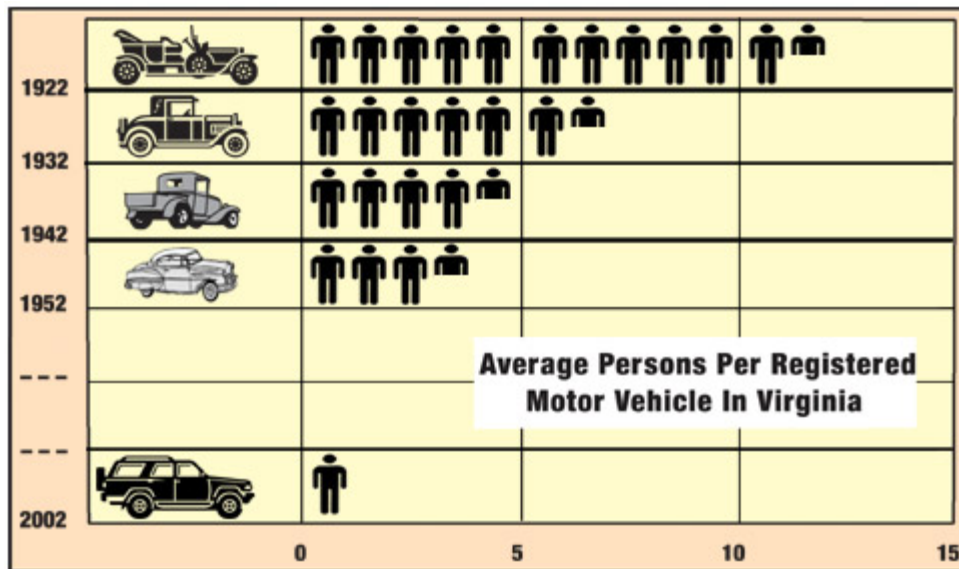
"With the paving of through highways, detours became obsolete, and the monthly map ceased publication in June 1938. Since then a yearly map has been printed, and its popularity has continued to grow. Many out-of-state travelers declare it to be the best state map they have seen, and students find it of value because of its historical markings and sketches."

And so the tradition continues today.

Answer File

Want a vehicle?

Should be more than one for you...



The dramatic growth of automobile use in the first half of the 20th century is documented in the January 1954 edition of the VDOT Bulletin. Charted there is the increase in people per registered vehicle in Virginia at intervals between 1922 and 1952.

In 1922, there were 11.5 Virginians per registered vehicle. In 1952, there were only 3.5 people per vehicle.

Perhaps not surprising to modern motorists, growth of auto-mobilization since the 1950s has continued to accelerate. In 2002, according to the Department of Motor Vehicles, the population of Virginia was 7.3 million people, while registered vehicles numbered 6.7 million. That's about 1.1 persons per vehicle. Also interesting is the comparison of licensed drivers--5.2 million--with the same number of vehicles. That computes to 1.4 vehicles per eligible driver.

One other insight: Lane miles in Virginia have increased at a much slower rate--from 110,177 in 1975 to 123,658 in 2002.

Humor

Archaeologists, that's what they are, or maybe sociologists. From the reports Adopt-a-Highway volunteers send us, you might assume as much. You just never know what they'll find out there on the roads when they're picking up litter, or how those roadside castoffs might be interpreted. Here are a few attempts to make sense out of recent finds:

The duck that didn't get away

Situation: A Masonic Lodge of Prince William County volunteer found a Chevy Cavalier car door and a stuffed mallard nearby. Interpretation: the duck tore the door off getting out of a car driven by a taxidermist.

Not tonight, honey.

The Sumerduck Village Ruritan Club of Fauquier County collected a baby food jar and, two yards away, an empty bottle of Tylenol. Interpretation: "I have to feed the baby, and I have a headache!"

Where's the ham?

Situation: A volunteer found an unusual number of egg cartons thrown on the roadside: Interpretation: The driver was not **eggstatic!**

Popsicle signs that can't be licked

One volunteer group removed 80 political signs from the right of way. Not to be outdone, another group removed 134: Interpretation: Politicians are to be heard and not seen.

(with many thanks and apologies to the Adopt-a-Highway Program)

About the bulletin

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